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By: Karen I. Lim

PATENT PD-201157

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Ashish Banerji, et al.

Examiner:

Tung T. Vo

Application No.:

10/074,765

Group Art Unit:

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PD-201157

Confirmation No.:

9961

For:

SYSTEM AND METHODOLOGY FOR

VIDEO COMPRESSION

Mail Stop AF Commissioner for Patents Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

This Appeal Brief is submitted in support of the Notice of Appeal dated April 14, 2010.

I. <u>REAL PARTY IN INTEREST</u>

The DIRECTV Group, Inc. is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

A previous Decision by the Board of Appeals and Interferences was rendered in this application on April 28, 2009 on substantially the same claims¹ but addressing a different primary reference.

III. STATUS OF THE CLAIMS

Claims 1-23 are pending in this appeal. No claim is allowed. This appeal is therefore taken from the final rejection of claims 1-23 on January 15, 2010.

IV. STATUS OF AMENDMENTS

All amendments to claims have been entered.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed invention addresses problems associated with video compression. The claimed invention improves compression efficiency in motion-compensated transform-based encoders of video signals by grouping video frames that are only between consecutive I-frames into a video data set, splitting the video data set into a plurality of homogeneous files, and individually compressing each of the homogeneous files.

¹ Claim 16 now recites a "computer-readable storage medium..."

Independent claim 1 recites:

1. A method of compressing video, comprising:

grouping video frames that are only between consecutive I-frames into a video data set (See, e.g., Specification, ¶¶ [08], [55]; Figs. 1, 2, 6);

splitting the video data set into a plurality of homogeneous files (See, e.g., Specification, ¶¶ [08], [10], [26]; Fig. 1, step 107, Figs. 3, 4, 5, and 6); and

individually compressing each of the homogeneous files (See, e.g., Specification, ¶¶ [08], [55]).

Dependent claim 3 recites:

3. A method according to claim 1, wherein said splitting includes storing mode information of the video data set and motion components in separate files (See, e.g., Specification, ¶¶ [10], [27], [28]).

Dependent claim 5 recites:

5. A method according to claim 1, wherein said splitting includes storing B-frame components of the video data set and P-frame components of the video data set in separate files (See, e.g., Specification, ¶¶[10], [27], [28]).

Dependent claim 6 recites:

6. A method according to claim 1, wherein said splitting includes storing mode 3 B-frame components of the video data set and mode 0, 1, and 2 B-frame components of the video data set in separate files (See, e.g., Specification, ¶¶[10], [27], [28]).

Dependent claim 7 recites:

7. A method according to claim 1, wherein said splitting includes storing different color components of the video data set in different files (See, e.g., Specification, ¶¶ [10], [23], [27], [28]).

Dependent claim 9 recites:

9. A method according to claim 1, wherein said compressing includes applying a grammar-based code (See, e.g., Specification, ¶ [34]-[36]).

Dependent claim 10 recites:

10. A method according to claim 9, wherein said applying includes employing a YK algorithm (See, e.g., Specification, ¶¶ [33]-[36]).

Independent claim 17 recites:

17. A video compression system, comprising:

means for grouping video frames that are only between consecutive I-frames into a video data set (See, e.g., Specification, \P [08], [55]; Figs. 1, 2, 6);

means for splitting the video data set into a plurality of homogeneous files (See, e.g., Specification, ¶¶ [08], [10], [26]; Fig. 1, step 107, Figs. 3, 4, 5, and 6); and

means for individually compressing each of the homogeneous files (See, e.g., Specification, ¶¶ [08], [55]; Figs. 1, 6).

Independent claim 19 recites:

19. A method of compressing video, comprising:

grouping video frames that are only between two consecutive I-frames into a video data set (See, e.g., Specification, ¶¶ [08], [55]; Figs. 1, 2, 6);

splitting the video data set into a plurality of individual data sequences (See, e.g., Specification, ¶ [08]); and

individually compressing each of the individual data sequences (See, e.g., Specification, ¶¶ [08], [55]; Figs. 1, 2, 6).

Independent claim 21 recites:

21. A method of compressing video, comprising:

splitting the video data set consisting of non-intra video frames into a plurality of data sequences (See, e.g., Specification, ¶ [26]); and

individually compressing each of the files, wherein at least one of the data sequences contains information from each of the non-intra video frames (See, e.g., Specification, ¶¶ [05], [22], [26]).

Independent claim 22 recites:

22. A method of compressing a video signal, comprising:

grouping video frames of the video signal that are only between consecutive I-frames into a video data set (See, e.g., Specification, ¶¶ [08], [55]; Figs. 1, 2, 6);

splitting the video data set into a plurality of individual data sequences (See, e.g., Specification, ¶ [08]); and

individually compressing each of the individual data sequences (See, e.g., Specification, ¶¶ [08], [55]; Figs. 1, 2, 6).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, and 11-23 were rejected for anticipation under 35 U.S.C. § 102(b) based on Savatier (US 5,400,075).

Claims 3, 5, and 16 were rejected for obviousness under 35 U.S.C. § 103(a) based on Savatier (US 5,400,075) in view of Tahara et al. (US 5,805,225).

Claims 4 and 16 were rejected for obviousness under 35 U.S.C. § 103(a) based on Savatier (US 5,400,075) in view of Carnahan (US 5,414,780).

Claims 6, 7, and 16 were rejected for obviousness under 35 U.S.C. § 103(a) based on Savatier (US 5,400,075) in view of Kato et al. (US 5,719,986).

Claims 8 and 16 were rejected for obviousness under 35 U.S.C. § 103(a) based on Savatier (US 5,400,075) in view of Weinberger et al. (US 5,680,129).

Claims 9 and 10 were rejected for obviousness under 35 U.S.C. § 103(a) based on Savatier (US 5,400,075) in view of Moroney et al. (US 5,771,239).

VII. ARGUMENT

A. CLAIMS 1, 2, AND 11-23 ARE NOT ANTICIPATED OVER SAVATIER
BECAUSE SAVATIER FAILS TO DISCLOSE "GROUPING VIDEO
FRAMES THAT ARE ONLY BETWEEN CONSECUTIVE I-FRAMES
INTO A VIDEO DATA SET."

To anticipate a patent claim, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

Independent claim 1 recites, *inter alia*, "grouping video frames that are **only** between consecutive I-frames into a video data set." Independent claim 17 recites, inter alia, "means for grouping video frames that are **only** between consecutive I-frames into a video data set." Independent claim 19 recites, *inter alia*, "grouping video frames that are only between two consecutive I-frames into a video data set." Independent claim 21 recites, *inter alia*, "splitting the video data set consisting of **non-intra video frames** into a plurality of data sequences." Independent claim 22 recites, *inter alia*, "grouping video frames of the video signal that are **only** between consecutive I-frames into a video data set."

The claimed invention addresses a need for efficient video compression by fine-tuning post-motion compensation compression through exploitation of commonalities in I-frame data versus non-I-frame data (e.g., P- and B- frames). In accordance with one aspect, video frames that are <u>only</u> between consecutive I-frames (claims 1, 17, 19, 22) or are otherwise consisting of **non-intra** video frames (claim 21) are grouped into a video data set. The video data set is split

into a plurality of data sequences (claims 19, 21, 22) or homogenous files (claims 1, 17) and individually compressed (claims 1, 17, 19, 21, 22).

Savatier suffers from the same deficiencies as the Gonzalez and Wu references that were applied in rejections that were reversed by the Board of Appeals in its decision of April 28, 2009. That is, Savatier is silent as to whether or not the P-frames and the B-frames between two I-frames are compressed independently of any other frames and Savatier is equally silent as to grouping video frames that are only between consecutive I-frames into a video data set as set forth in independent claims 1, 17, 19, and 22, and splitting the video data set consisting of non-intra video frames into a plurality of data sequences as set forth in independent claim 21.

The Examiner refers to Fig. 1 and col. 2, lines 44-62, of *Savatier* as disclosing these claimed features. However, reference to Fig. 1 of *Savatier* clearly shows a first group of frames GOFi **including two I-frames**, as well as a second group of frames GOFi+1 **including two I-frames**. The description of this figure, at col. 2, lines 44-62, of *Savatier*, does not contradict this clear showing in the drawing of I-frames being included within the two groups, GOFi and GOFi+1.

Accordingly, since the groupings of video frames in *Savatier*, relied upon by the Examiner, do **not** disclose "grouping video frames that are <u>only between</u> consecutive I-frames into a video data set," as in claim 1, for example, but similar features are recited in the other independent claims, *Savatier* cannot anticipate the subject matter of independent claims 1, 17, 19, 21, and 22.

In the Final Office Action, the Examiner asserted that the P-frames and the B-frames in Fig. 1 of *Savatier* are only between the I-frames and are compressed independently of any other frames, it being contended that the P- and B-frames are encoded by the encoder of Fig. 3.

Appellants maintain their position, argued *supra*, that *Savatier* simply does not disclose or suggest the claim feature of "grouping video frames that are <u>only</u> between consecutive I-frames into a video data set."

Respectfully, the Examiner has not properly applied *Savatier* to the specific language of independent claims 1, 17, 19, and 22. In accordance with these claims, **only** video frames that are **between** consecutive I-frames are grouped into a video data set. Thus, the I-frames cannot be part of that group, or video data set. The B- and P-frames of *Savatier* are not so grouped. As seen in Fig. 1 of *Savatier*, each group of video frames, GOFi and GOFi+1, must consist of the B- and P-frames sandwiched between, and including, the two-I-frames. The two I-frames in *Savatier* are clearly part of the group. Thus, in *Savatier*, there are no video frames grouped into a video data set, wherein the members of that group do not include I-frames, as required by the language of independent claims 1, 17, 19, and 22. The Examiner may not arbitrarily pick out the B- and P-frames between the I-frames in *Savatier* and call only the B- and P-frames a group, or video data set. There is absolutely no disclosure or suggestion in *Savatier* of **only** these B- and P-frames forming a video data set group, especially a video data set that is then split into a plurality of homogeneous files, with each of the homogeneous files then being individually compressed.

Similarly, independent claim 21 recites "splitting the video data set consisting of non-intra video frames into a plurality of data sequences." Thus, in claim 21 also, each video data set must "consist" (i.e., include nothing more than what is listed) of "non-intra video frames (i.e., no I-frames are permitted in the video data set). Yet, the video data sets, *viz.*, groups GOFi and GOFi+1 of *Savatier*, include I-frames, this disclosure being inconsistent with the instant claimed subject matter.

The Examiner asserted, at page 4 of the Final Office Action, that when an inter-coding mode is selected in *Savatier*, only P- or B-frames are encoded, referring to col. 3, lines 13-45. The cited portion of the reference recites

Blocks of data encoded according to P or B interframe coding also consist of matrices of Discrete Cosine Coefficients. In this instance however the coefficients represent residues or differences between a predicted 8.times.8 pixel matrix and the actual 8.times.8 pixel matrix. These coefficients are also subjected to quantization and run- and variable-length coding. In the frame sequence I and P frames are designated anchor frames. Each P frame is predicted from the last-most occurring anchor frame. Each B frame is predicted from one or both of the anchor frames between which it is disposed. The predictive coding process involves generating displacement vectors which indicate which macroblock of an anchor frame most closely matches the macroblock of the predicted frame currently being coded. The pixel data of the matched block in the anchor frame is subtracted, on a pixel-by-pixel basis, from the block of the frame being encoded, to develop residues. The residues are subjected to the Discrete Cosine Transform and the transformed residues and the motion vectors comprise the coded data for the predictive frames. Even though a frame is predictive encoded, if no reasonable block matches can be found, a particular block or macroblock in the predictive frame may be intraframe coded. In addition certain ones of the macroblocks may not be encoded. Macroblocks are skipped by increasing the address of the next coded macroblock. Macroblocks of interframe encoded data include information defining the level of quantization employed, a macroblock address or location indicator, a macroblock type (intra-coded, intercoded) then the DCT coefficients for each of the six blocks within a macroblock, each of which is followed by an end of block code EOB (emphasis added).

As can be seen in this portion of *Savatier*, there is no mention of the B- and P- frames only being formed into a video data set, which is then split into a plurality of homogeneous files, with each of the homogeneous files then being individually compressed. In fact, as can be seen in the emphasized portions, I frames are very much taken into account in the encoding process, with an I-frame being designated as an anchor frame (i.e., the I-frame is still part of the group, or video data set), and that any frame may be predictive coded or intraframe coded. Therefore, this portion of the reference cited by the Examiner does not provide any disclosure or suggestion of forming a video data set group only of B- and P-frames, especially a video data set

that is then split into a plurality of homogeneous files, with each of the homogeneous files then being individually compressed. Separate encoding modes for I-frames and other frames does not, *per se*, suggest forming a video data set group **only** of B- and P-frames, the video data set then being split into a plurality of homogeneous files, with each of the homogeneous files then being individually compressed.

With regard to col. 2, lines 54-66, of *Savatier*, cited by the Examiner in the Final Office Action for an alleged teaching of splitting the video data set consisting of non-intra video frames into a plurality of data sequences, immediately prior to this portion, the reference discloses that the "frames in respective GOFs are compressed according to three processes" (col. 2, lines 50-51). Frames in respective GOFs, by definition, include I-frames since, as depicted in Fig. 1 of the reference, the I-frames are part of the GOFs. Thus, it is simply erroneous for the Examiner to contend that *Savatier* discloses or suggests splitting the video data set consisting of non-intra video frames into a plurality of data sequences. Any video data set in *Savatier* includes the I-frames, which is contrary to the subject matter recited in the instant claims.

For at least these reasons, *Savatier* does not anticipate claims 1, 2, and 11-23 under 35 U.S.C. § 102(b). Accordingly, reversal, by the Honorable Board, of the Examiner's rejection of claims 1, 2, and 11-23 under 35 U.S.C. § 102(b), is respectfully solicited.

B. CLAIMS 3, 5, AND 16 ARE NOT RENDERED OBVIOUS BY SAVATIER AND TAHARA ET AL. BECAUSE TAHARA ET AL. DOES NOT CURE THE DEFICIENCIES OF SAVATIER.

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention under any statutory provision always rests upon the Examiner. *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed .Cir. 1997); *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir.

1995); *In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In rejecting a claim under 35 U.S.C. § 103, the Examiner is required to provide a factual basis to support the obviousness conclusion. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967); *In re Lunsford*, 357 F.2d 385, 148 USPQ 721 (CCPA 1966); *In re Freed*, 425 F.2d 785, 165 USPQ 570 (CCPA 1970).

No prima facie case of obviousness, within the meaning of 35 U.S.C. § 103(a), has been established with regard to the subject matter of claims 3, 5, and 16 because *Tahara et al.*, applied by the Examiner for the supposed teaching of storing mode information of the video data set and motion components in separate files and B-frame components of the video data set and P-frame components of the video data set in separate files, fails to cure the noted shortcomings in the teachings of *Savatier*.

Moreover, claims 3, 5, and 16 are separately patentable. Claim 3 recites "wherein said splitting includes storing mode information of the video data set and motion components in separate files." Claim 5 recites "wherein said splitting includes storing B-frame components of the video data set and P-frame components of the video data set in separate files."

The Examiner relied on elements 51 a, b, c, and 1 in Fig. 6 of *Tahara et al.* for a disclosure of storing these specifically claimed elements. However, an inspection of Fig. 6 of *Tahara et al.* clearly depicts a frame memory 511 as storing three pictures; a current picture, a picture preceding the current picture, and a picture succeeding the current picture; but, there is no storage of "mode information of a video data set" or "motion components" or B-frame components and P-frame components of the video data set, and there is clearly no storage in "separate files," as claimed. Thus, the combination of *Savatier* and *Tahara et al.* clearly does not teach or suggest the features of claims 3, 5, and 16.

Accordingly, reversal, by the Honorable Board, of the Examiner's rejection of claims 3, 5, and 16 under 35 U.S.C. § 103(a) is respectfully solicited.

C. CLAIMS 4 AND 16 ARE NOT RENDERED OBVIOUS BY SAVATIER AND CARNAHAN BECAUSE CARNAHAN DOES NOT CURE THE DEFICIENCIES OF SAVATIER.

No prima facie case of obviousness, within the meaning of 35 U.S.C. § 103(a), has been established with regard to the subject matter of claims 4 and 16 because *Carnahan*, applied by the Examiner for the supposed teaching of splitting that includes storing horizontal components of the video data set and vertical components of the video data set in separate files, fails to cure the noted shortcomings in the teachings of *Savatier*.

Accordingly, reversal, by the Honorable Board, of the Examiner's rejection of claims 4 and 16 under 35 U.S.C. § 103(a) is respectfully solicited.

D. CLAIMS 6, 7, AND 16 ARE NOT RENDERED OBVIOUS BY SAVATIER AND KATO ET AL. BECAUSE KATO ET AL. DOES NOT CURE THE DEFICIENCIES OF SAVATIER.

No prima facie case of obviousness, within the meaning of 35 U.S.C. § 103(a), has been established with regard to the subject matter of claims 6, 7, and 16 because *Kato et al.*, applied by the Examiner for the supposed teaching of wherein said splitting includes storing mode 3 B-frame components of the video data set and mode 0, 1, and 2 B-frame components of the video data set in separate files, and wherein said splitting includes storing different color components of the video data set in different files, fails to cure the noted shortcomings in the teachings of *Savatier*.

Moreover, claims 6 and 7 are separately patentable. Claim 6 recites "wherein said splitting includes storing mode 3 B-frame components of the video data set and mode 0, 1, and 2 B-frame components of the video data set in separate files" and claim 7 recites "wherein said splitting includes storing different color components of the video data set in different files.

The Examiner cites various elements in Fig. 3 of *Kato et al.* as disclosing the features of claim 6, and Fig. 5C, elements Y, Cb, and Cr of *Kato et al.*, as disclosing the features of claim 7. Appellants respectfully disagree.

Fig. 3 of *Kato et al.* is a depiction of a picture encoding apparatus with prediction modes and intra-frame prediction, but nothing therein teaches or suggests the specific features of claim 6, wherein the splitting of a video data set into a plurality of homogeneous files includes "storing mode 3 B-frame components of the video data set and mode 0, 1, and 2 B-frame components of the video data set in separate files." *Kato et al.* does not disclose these components and clearly does not teach or suggest storing them in "separate files."

Fig. 5C of *Kato et al.* illustrates a microblock construction, with a luminance signal Y and a mean value R of a chroma signal Cr, but while this may refer to "color," there is no teaching or suggestion in *Kato et al.* that the splitting of a video data set into a plurality of homogeneous files includes "storing different color components of the video data set in different files." Even if the Y, Cb and Cr within Fig. 5C may be considered to be "different color components" which they are not, such components are not stored "in different files," as claimed.

Accordingly, reversal, by the Honorable Board, of the Examiner's rejection of claims 6, 7, and 16 under 35 U.S.C. § 103(a) is respectfully solicited.

E. CLAIMS 8 AND 16 ARE NOT RENDERED OBVIOUS BY SAVATIER AND WEINBERGER ET AL. BECAUSE WEINBERGER ET AL. DOES NOT CURE THE DEFICIENCIES OF SAVATIER.

No prima facie case of obviousness, within the meaning of 35 U.S.C. § 103(a), has been established with regard to the subject matter of claims 8 and 16 because Weinberger et al., applied by the Examiner for the supposed teaching of mapping negative values in one of the homogeneous files in to positive values, and a file header, fails to cure the noted shortcomings in the teachings of Savatier.

Accordingly, reversal, by the Honorable Board, of the Examiner's rejection of claims 8 and 16 under 35 U.S.C. § 103(a) is respectfully solicited.

F. CLAIMS 9 AND 10 ARE NOT RENDERED OBVIOUS BY SAVATIER AND MARONEY ET AL. BECAUSE MARONEY ET AL. DOES NOT CURE THE DEFICIENCIES OF SAVATIER.

No prima facie case of obviousness, within the meaning of 35 U.S.C. § 103(a), has been established with regard to the subject matter of claims 9 and 10 because Maroney et al., applied by the Examiner for the supposed teaching of MPEG coding techniques using a formal grammar and a set of semantic rules for the construction of bitstreams to be transmitted, fails to cure the noted shortcomings in the teachings of Savatier.

Moreover, claims 9 and 10 are separately patentable. Claim 9 recites "wherein said compressing includes applying a grammar-based code" and claim 10 recites "wherein said applying includes employing a YK algorithm." While the Examiner relied on *Maroney et al.* for supposedly teaching these claim features, the Examiner never specifically identifies what portion or portions of *Maroney et al.* are relied on. But, to whatever extent *Maroney et al.* may be

considered to teach a "grammar-based code" and/or a YK algorithm," they are not employed in the manner claimed, i.e., for compressing **each** homogeneous file. In fact, at page 10 of the Office Action of August 18, 2009, the Examiner acknowledged that *Maroney et al.* fails to teach a "YK algorithm," but asserted, without offering any evidence for the conclusion, that "the grammar encoding would obviously have YK algorithm to encode the homogeneous files." Thus, no *prima facie* case of obviousness has been established regarding the subject matter of claims 9 and 10.

Accordingly, reversal, by the Honorable Board, of the Examiner's rejection of claims 9 and 10 under 35 U.S.C. § 103(a) is respectfully solicited.

VIII. CONCLUSION AND PRAYER FOR RELIEF

For the foregoing reasons, Appellants request the Honorable Board to reverse each of the

Examiner's rejections.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is

hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account 50-0383 and please credit any excess fees to

such deposit account.

Respectfully Submitted,

Date: June 9, 2010

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IX. CLAIMS APPENDIX

- 1. A method of compressing video, comprising:
 grouping video frames that are only between consecutive I-frames into a video data set;
 splitting the video data set into a plurality of homogeneous files; and
 individually compressing each of the homogeneous files.
- 2. A method according to claim 1, wherein the video frames include P-frames and B-frames.
- 3. A method according to claim 1, wherein said splitting includes storing mode information of the video data set and motion components in separate files.
- 4. A method according to claim 1, wherein said splitting includes storing horizontal components of the video data set and vertical components of the video data set in separate files.
- 5. A method according to claim 1, wherein said splitting includes storing B-frame components of the video data set and P-frame components of the video data set in separate files.
- 6. A method according to claim 1, wherein said splitting includes storing mode 3 B-frame components of the video data set and mode 0, 1, and 2 B-frame components of the video data set in separate files.
- 7. A method according to claim 1, wherein said splitting includes storing different color components of the video data set in different files.

8. A method according to claim 1, further comprising mapping negative values in one of the homogeneous files into positive values.

- 9. A method according to claim 1, wherein said compressing includes applying a grammar-based code.
- 10. A method according to claim 9, wherein said applying includes employing a YK algorithm.
- 11. A method according to claim 1, wherein said compressing includes bit plane encoding quantized transform coefficients obtained from the video data set.
- 12. A method according to claim 11, wherein said compressing includes performing a runlength encoding of bit planed encoded coefficients.
- 13. A method according to claim 1, wherein said homogeneous files have similar statistical properties.
- 14. A method according to claim 1, further comprising multiplexing the separate files into a bit stream.
- 15. A method according to claim 14, further comprising prefixing a corresponding header to each of the separate files, said header indicating a size of a corresponding separate file.

- 16. A computer-readable storage medium bearing instructions for compressing video, said instructions being arranged, upon execution by one or more processors, to perform the steps of the methods as in any of claims 1-15.
 - 17. A video compression system, comprising:

19. A method of compressing video, comprising:

means for grouping video frames that are only between consecutive I-frames into a video data set;

means for splitting the video data set into a plurality of homogeneous files; and means for individually compressing each of the homogeneous files.

- 18. A video compression system according to claim 17, further comprising: means for multiplexing the individually compressed files into a bit stream.
- grouping video frames that are only between two consecutive I-frames into a video data set; splitting the video data set into a plurality of individual data sequences; and individually compressing each of the individual data sequences.
- 20. A method according to claim 19, wherein at least one of the individual data sequences contains information from each of the video frames that are only between the two consecutive I-frames.

21. A method of compressing video, comprising:

splitting the video data set consisting of non-intra video frames into a plurality of data sequences; and

individually compressing each of the files, wherein at least one of the data sequences contains information from each of the non-intra video frames.

22. A method of compressing a video signal, comprising:

grouping video frames of the video signal that are only between consecutive I-frames into a video data set;

splitting the video data set into a plurality of individual data sequences; and individually compressing each of the individual data sequences.

23. A method according to claim 22, further comprising multiplexing the individual data sequences into a bit stream.

X. EVIDENCE APPENDIX

Appellants are unaware of any evidence that is required to be submitted in the present Evidence Appendix.

XI. RELATED PROCEEDINGS APPENDIX

Appellants are unaware of any related proceedings that are required to be submitted in the present Related Proceedings Appendix.